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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/525,013	02/17/2005	Hanspeter Steffen	2360-0422PUS1	5019
2292 7590 07/28/2009 BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747				
EXAMINER O HERN, BRENT T				
ART UNIT		PAPER NUMBER		
1794				
NOTIFICATION DATE		DELIVERY MODE		
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary**Application No.**

10/525,013

Applicant(s)

STEFFEN, HANSPETER

Examiner

Brent T. O'Hern

Art Unit

1794

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 April 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) 10-21 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SE/US)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Group I, claims 1-9 in the reply filed on 4/2/2009 is acknowledged.

The requirement is still deemed proper and is therefore made FINAL.

Specification

2. Applicant is reminded of the proper language and format for an abstract of the disclosure.
3. The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.
4. The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc. (See MPEP 608.01(b).) Applicant's Abstract is two paragraphs long.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 2-5, 7 and 9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
6. A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent

protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claims 2-5, 7 and 9 recite broad ranges/limitations followed by narrower ranges/limitations as well as the indefinite "preferably" language.

Clarification and or correction required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-3 and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Woodruff (US 4,224,347).

Regarding claim 1, Woodruff ('347) teaches the method for extending the shelf life of perishable agricultural products and/or food, whereby the method includes the steps of filling the agricultural or food products into a packaging container, creating a

modified atmosphere inside the packaging container and sealing the packaging container, characterized in that the modified atmosphere is created in such a way, that it contains an increased concentration of oxygen compared to normal ambient air (*See col. 2, ll. 7-41 and col. 1, ll. 11-30.*).

Regarding claim 2, Woodruff ('347) teaches creating the modified atmosphere in such a way that the concentration of oxygen in the modified atmosphere is between 40% and 90% (*See col. 2, ll. 20-41.*).

Regarding claim 3, Woodruff ('347) teaches creating the modified atmosphere in such a way that it additionally contains an increased concentration of carbon dioxide compared to normal ambient air, whereby the carbon dioxide concentration preferably between 2% and 25% (*See col. 2, ll. 20-41.*).

Regarding claim 5, Woodruff ('347) teaches creating the modified atmosphere in such a way that it further contains an elevated concentration of an inert gas (*See col. 2, ll. 7-41, carbon dioxide is inert.*).

The phrase "preferably a noble gas, compared to normal ambient air, whereby the concentration of the inert gas preferably is between 2% and 10%, especially approximately 8%" in claim 5, lines 3-5 is vague and indefinite since the preferably language does not require a noble gas or the above range.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Woodruff (US 4,224,347) in view of Andy et al. (US 2002/0025364).

Woodruff ('347) teaches the method discussed above, however, fails to expressly disclose creating the modified atmosphere in such a way that it further contains an increased concentration of ozone compared to normal ambient air, whereby the ozone concentration is between 1% and 17%.

However, Andy ('364) teaches a method of extending the shelf life of food by creating the modified atmosphere in such a way that it further contains an increased concentration of ozone compared to normal ambient air, whereby the ozone concentration is between 1% and 17% (*See paras. 19-25 and Abstract.*) for the purpose of reducing bacterial count in the food without adversely affecting the quality of the food (*See paras. 23-24.*).

Therefore, it would have been obvious to expose the food product with an increased concentration of ozone as taught by Andy ('364) in Woodruff ('347) in order to reduce the bacterial count in the food without adversely affecting the quality of the food.

9. Claims 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Woodruff (US 4,224,347) in view of Gutman (US 2002/0155027).

Woodruff ('347) teaches the method discussed above, however, fails to expressly disclose in that after sealing of the packaging container it is irradiated with ultraviolet light in such a way, that ozone is created by the ultraviolet light due to the high concentration of oxygen inside the sealed packaging container such that the density of

energy of the ultraviolet light impinging on the packaging container is between 2,000 mW sec cm⁻² (20 kJ m⁻²) and 10,000 mW sec cm⁻² (100 kJ m⁻²), whereby the ultraviolet light has a wavelength between approximately 160 nm and approximately 280 nm and preferably a intensity maximum at 185 nm and/or a intensity maximum at 254 nm.

However, Gutman ('027) teaches the method of irradiating a food packaging system material with ultraviolet light having the above wavelength to create ozone (*See Abstract and paras. 61-68.*) for the purpose of reducing the microbes, virals, pathogens and sanitizing the food packaging system materials (*See Abstract and para. 66.*). Furthermore, it would have been obvious to one having ordinary skill in the art to adjust the above density for the intended application since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Therefore, it would have been obvious to use the above method steps as taught by Gutman ('027) in Woodruff ('347) in order to reduce the microbes, virals, pathogens and sanitize the food materials.

10. Claims 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Woodruff (US 4,224,347) in view of Garwood (US 2002/0122856).

Woodruff ('347) teaches the method discussed above, however, fails to expressly disclose that prior to being filled into the packaging container the agricultural or food products are washed with ozonic water and the washing water has a ozone content between 2 and 20 mg/l, preferentially an ozone content between 4 and 10 mg/l, especially an ozone content between 6 and 8 mg/l.

However, Garwood ('856) teaches washing and treating food with ozonic water (*See Abstract and para. 40.*) for the purpose of sanitizing the food (*See Abstract and para. 40.*). Furthermore, it would have been obvious to one having ordinary skill in the art to adjust the amount of ozone to the above value for the intended application since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Therefore, it would have been obvious to treat Woodruff's ('347) food with ozonic water as taught by Garwood ('856) and at the above concentration in order to provide a sanitized food.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brent T. O'Hern whose telephone number is (571)272-0496. The examiner can normally be reached on Monday-Thursday, 9:00-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Sample can be reached on (571) 272-1376. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Brent T. O'Hern/
Examiner
Art Unit 1794
July 23, 2009